IN THE CLAIMS:

Please amend claim 16 as follows:

1.   (Canceled)

2.   (Previously Presented) The method as defined in claim 4, further comprising the step of repeating the calculating, generating, and using steps for each pixel in the scaled destination image.

3.   (Previously Presented) The method as defined in claim 5, further comprising the step of:

storing all available convolution kernels in a memory,

wherein in the generating step, one of the stored convolution kernels is selected based on the calculated local context metric.

4.   (Previously Presented) A method for scaling a source image to produce a scaled destination image, said method comprising the steps of:

calculating a local context metric from a local portion of the source image;

generating a convolution kernel from a plurality of available convolution kernels based on the calculated local context metric;

using the generated convolution kernel to generate at least one pixel of the scaled destination image, the scaled destination image having a different resolution than the source image; and

storing at least two convolution kernels in a memory,

wherein in the generating step, either one of the stored convolution kernels is selected or another convolution kernel is generated by interpolating the stored convolution kernels.

5.   (Previously Presented) A method for scaling a source image to produce a scaled destination image, said method comprising the steps of:

calculating a local context metric from a local portion of the source image;

generating a convolution kernel from a plurality of available convolution kernels based on the calculated local context metric; and

using the generated convolution kernel to generate at least one pixel of the scaled destination image, the scaled destination image having a different resolution than the source image,

wherein the available convolution kernels include at least one smoothing kernel and at least one sharpening kernel.

6.   (Previously Presented) The method as defined in claim 5, wherein the local context metric has more than two possible values.

7.   (Original) The method as defined in claim 6, wherein the available convolution kernels include a complete smoothing kernel, a complete sharpening kernel, and a plurality of other kernels that provide a transition between the complete sharpening kernel and the complete smoothing kernel.

8.   (Previously Presented) A machine-readable medium encoded with a program for scaling a source image to produce a scaled destination image, said program containing instructions for performing the steps of:

calculating a local context metric from a local portion of the source image;

generating a convolution kernel from a plurality of available convolution kernels based on the calculated local context metric; and

using the generated convolution kernel to generate at least one pixel of the scaled destination image, the scaled destination image having a different resolution than the source image,

wherein the available convolution kernels include at least one smoothing kernel and at least one sharpening kernel.

9.   (Original) The machine-readable medium as defined in claim 8, wherein said program further contains instructions for performing the step of repeating the calculating, generating, and using steps for each pixel in the destination image.

10.   (Original) The machine-readable medium as defined in claim 8, wherein said program further contains instructions for performing the step of:

storing all available convolution kernels in a memory,

wherein in the generating step, one of the stored convolution kernels is selected based on the calculated local context metric.

11.   (Original) The machine-readable medium as defined in claim 8, wherein said program further contains instructions for performing the step of:

storing at least two convolution kernels in a memory,

wherein in the generating step, either one of the stored convolution kernels is selected or another convolution kernel is generated by interpolating the stored convolution kernels.

12.   (Original) The machine-readable medium as defined in claim 8, wherein the local context metric has more than two possible values.

13.   (Original) The machine-readable medium as defined in claim 12, wherein the available convolution kernels include a complete smoothing kernel, a complete sharpening kernel, and a plurality of other kernels that provide a transition between the complete sharpening kernel and the complete smoothing kernel.

14.   (Previously Presented) An image scaling device that receives pixels of a source image and outputs pixels of a scaled destination image, said image scaling device comprising:

        a context sensor for calculating a local context metric based on local source image pixels;

        a kernel generator coupled to the context sensor, the kernel generator generating a current convolution kernel from a plurality of available convolution kernels based on the local context metric calculated by the context sensor; and

        a scaler coupled to the kernel generator, the scaler receiving the coefficients of the current convolution kernel from the kernel generator, and using the coefficients to generate at least one pixel of the scaled destination image from pixels of the source image, the scaled destination image having a different resolution than the source image,

        wherein the available convolution kernels include at least one smoothing kernel and at least one sharpening kernel.

15.   (Original) The image scaling device as defined in claim 14, wherein the context sensor calculates a local context metric for each pixel in the destination image.

16. (Currently Amended) An image scaling device that receives pixels of a source image and outputs pixels of a scaled destination image, said image scaling device comprising:

a context sensor for calculating a local context metric based on local source image pixels;

a kernel generator coupled to the context sensor, the kernel generator generating a current convolution kernel from a plurality of available convolution kernels based on the local context metric calculated by the context sensor; and

a scaler coupled to the kernel generator, the scaler receiving the coefficients of the current convolution kernel from the kernel generator, and using the coefficients to generate at least one pixel of the scaled destination image from pixels of the source image, the scaled destination image having a different resolution than the source image,

wherein the available convolution kernels include at least one smoothing kernel and at least one sharpening kernel,

the kernel generator stores all available convolution kernels, and

the kernel generator selects one of the stored convolution kernels as the current convolution kernel based on the calculated local context metric.

17. (Original) The image scaling device as defined in claim 14,

wherein the kernel generator stores at least two convolution kernels, and

the kernel generator generates the current convolution kernel by either selecting one of the stored convolution kernels or generating another convolution kernel by interpolating the stored convolution kernels.

18. (Original) The image scaling device as defined in claim 14, wherein the local context metric has more than two possible values.

19. (Original) The image scaling device as defined in claim 18, wherein the available convolution kernels include a complete smoothing kernel, a complete sharpening kernel, and a plurality of other kernels that provide a transition between the complete sharpening kernel and the complete smoothing kernel.

20.   (Previously Presented) A display device that receives source image pixels and displays a scaled destination image, said display device comprising:

a context sensor for calculating a local context metric based on local source image pixels;

a kernel generator coupled to the context sensor, the kernel generator generating a current convolution kernel from a plurality of available convolution kernels based on the local context metric calculated by the context sensor;

a scaler coupled to the kernel generator, the scaler receiving the coefficients of the current convolution kernel from the kernel generator, the scaler using the coefficients to generate at least one pixel of the scaled destination image from pixels of the source image, the scaled destination image having a different resolution than the source image; and

a display for displaying the scaled destination image,

wherein the available convolution kernels include at least one smoothing kernel and at least one sharpening kernel.

21.   (Original) The display device as defined in claim 20, wherein the context sensor calculates a local context metric for each pixel in the destination image.

22.   (Original) The display device as defined in claim 20,

wherein the kernel generator stores all available convolution kernels, and

the kernel generator selects one of the stored convolution kernels as the current convolution kernel based on the calculated local context metric.

23.   (Original) The display device as defined in claim 20,

wherein the kernel generator stores at least two convolution kernels, and

the kernel generator generates the current convolution kernel by either selecting one of the stored convolution kernels or generating another convolution kernel by interpolating the stored convolution kernels.

24. (Original) The display device as defined in claim 20, wherein the display is an LCD display.

25. (Previously Presented) The display device as defined in claim 20, wherein the available convolution kernels include a complete smoothing kernel, a complete sharpening kernel, and a plurality of other kernels that provide a transition between the complete sharpening kernel and the complete smoothing kernel.